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THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. XCIV.—THURSDAY, JANUARY 6, 1876.—NO. 1.

NEW METHODS IN THE TREATMENT OF

EXSTROPHY OF THE BLADDER AND OF ERECTILE TUMORS.

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I. EXSTROPHY OF THE BLADDER; OPERATION.

This operation consists in removing the exposed mucous membrane of the bladder, so that flaps drawn from the adjacent skin may adhere directly to its raw surface. In the case detailed below, the mucous membrane was removed down to the ureters. Flaps drawn from the sides were then united on the median line. Union was solid in about ten weeks. The usual surgical resource for this sad malformation has been an attempt only to cover the mucous membrane. But it would seem better to obliterate it, by the same operation, than to form a cavity which is worse than useless because it collects the salts of the urine.

The usual operation, of which a case is given below, also needs a more extended dissection. It requires that a first flap be turned down upon the bladder from above, the object of which is to secure a lining of skin for the new cavity. This flap is covered with two others drawn from the sides and united upon the median line. The denuded surface from which the first flap was taken is then similarly closed by further incisions. By the operation now proposed, both the first flap and the dissection for covering the surface which supplies it are unnecessary. In both operations flaps are best cut where the skin is most relaxed. Hence it is better to include in the incisions the loose integuments of the groin and even of the scrotum. The edges can then be brought together in any direction in which the flaps yield most readily.

In a third case cited below, where the bladder (open over the pubes) still presented a cavity, I was able to close this, so that by wearing a truss-pad the patient could retain urine for two hours. This case, however, was not one of complete exstrophy, like the others.

I am indebted to Dr. H. H. A. Beach for the following abstract from the hospital records.

Case I. *Complete Exstrophy; New Operation.* — E. C. A., six years old, presented a complete exstrophy of the bladder, which was wholly exposed over a surface of two and a half inches; the skin was tense and the abdominal wall thin. The testicles were still in the inguinal canal.

December 13, 1874. Operation, under ether. The mucous surface of the exposed bladder was carefully dissected off, and the lateral flaps, including both inguinal regions, were united upon the median line and transversely above it. Sixteen silver sutures were introduced, and a piece of adhesive plaster was placed over the whole, to keep the parts immovable.

December 14th and 15th. Patient doing well, with little pain.

December 16th. A good deal of swelling about the wound, with a small slough near its upper extremity, where urine oozes.

December 18th. Pulse 140. Temperature, A. M., 101° ; P. M., 103°.

December 21st. Twelve sutures removed.

December 22d. Remaining sutures removed.

December 25th. Patient doing well. The wound is healed, except at its upper extremity, where there is a little discharge.

January 22, 1875. A small abscess is forming under the flap. Patient has had a slight convulsion.

January 25th. Abscess discharged through one of the needle-holes.

January 26th. Edges separated a little by ulceration at the upper extremity.

March 1st. Patient is running about.

March 12th. Photograph was taken.

April 10th. Union solid and no tenderness remaining.

May 7th. Discharged, well.

Case II. *Complete Exstrophy; Old Operation.* — C. P., aged seventeen, entered the hospital with complete exstrophy. Above the symphysis was a pulpy, vascular, and florid swelling, two and a half inches in diameter, formed by the protruded mucous surface of the posterior wall of the bladder. The umbilicus was wanting; no hernia existed, and the testicles had descended. The surface was very sensitive and tender, the penis rudimentary, with a complete epispadias. The urine, distilled from the ureters, fell upon the urethra, which served imperfectly as a spout. The patient was anxious and suffering. A plate covering the part caused excoriation.

June 2, 1868. Operation, under ether. A transverse incision midway between the bladder and the sternum, with vertical incisions at its extremities, surrounded three sides of a flap, of which the hinge was next the bladder. The flap was turned down over the bladder as far as the penis. Additional transverse incisions were now made, and four side flaps were dissected up, two of them abreast of the bladder, and two on a level with the wound from which the first flap was taken. These four flaps were now drawn to the median line and united, two serving to cover the raw surface of the inverted flap, and two that of the region from which it was taken. The wound was everywhere closely united by silver sutures.

June 3d. Patient quite comfortable, sleeping in a sitting posture to encourage the escape of urine. Flaxseed tea and milk *ad libitum*.

June 7th. Doing well. Appetite good. Takes an opiate at night. The parts in the neighborhood of the wound are carefully washed night and morning, the salts of the urine removed, and the skin protected by castor-oil.

June 11th. Half the silver sutures removed.

June 16th. Patient sits up nearly the whole day, and has an excellent appetite. Flaps are united beneath, while the edges are looking well, though but little united by first intention.

June 18th. Sutures all removed. Patient says that he is much more comfortable than before the operation. The most troublesome feature of the case is the deposition of salts upon the scrotum.

June 26th. Margins pretty well united. All the urine escapes just over the glans penis.

July 7th. Doing finely. Walks about.

August 20th. Cicatrization complete. Bladder wholly covered. His condition is far more comfortable than before the operation. Discharged.

CASE III. *Orifice above the Pubes; Operation.* — F. W., aged sixteen, presented just above the symphysis pubis an orifice almost an inch in diameter, circular, and in part occupied by a rudimentary glans penis. There were no herniæ, and both testicles had descended. In the erect posture the urine constantly dribbled away. When the patient was lying down the urine collected in the bladder until it overflowed.

November 7th. Operation, under ether. The edges of the aperture and frænum were refreshed, dissected up, and joined with six silver sutures; the orifice was reduced so as to embrace tightly a piece of elastic catheter passed into the bladder.

November 11th. Wound suppurating a little. Glans penis at times enlarged, and trying to escape through the small orifice left from the operation.

November 12th. Catheter no longer worn. Union perfect. Urine escapes wholly through the small aperture.

December 30th. Patient has a sharp attack of epididymitis.

January 2d. Improving.

March. Patient discharged, well. Retains urine for two hours by means of an apparatus consisting of a truss-spring around the pelvis, to which is attached behind a steel spring, passing between the legs and terminating in a pad which compresses the aperture in front.

II. ERECTILE TUMORS OBLITERATED BY CENTRAL CAUTERIZATION WITH A SATURATED SOLUTION OF NITRATE OF SILVER.

In each of the following cases erectile tumors of a formidable nature were easily obliterated by the injection, with a subcutaneous syringe, of a few drops of a solution (equal parts by weight) of nitrate of silver in water. If the tissues are firmly compressed about the orifice of the tube, after its introduction, an eschar of the solid tissues is produced, soon enveloped by coagulum adherent from inflammation, with general blood-stasis in the neighborhood. While the eschar thus made is more distinct and firm than that of acid or of the perchloride, the expression of the blood probably diminishes the danger of embolism. The ultimate result is abscess and solid cicatrization. The first of the following cases was one of a large and pendulous under lip, which was so solidified by a number of simultaneous injections that a V-shaped portion was finally removed from it. The second was one of cirsoid aneurism in the cavity of the orbit, which could not have been treated effectually by ligature without sacrificing the eye.

CASE I. *Pulsating Nævus of the Lips and Face; Operation; Cure.* — A. E., female, aged thirty-six, had a congenital nævus, involving the whole of the chin and lower lip and the inside of the upper lip, with a claret-colored stain extending over both cheeks as far as the ears. The lower lip and the chin were largely hypertrophied and pendulous, pulsating when compressed.

November 24, 1868. Operation. The patient was etherized, and the inside of the whole upper lip strangulated by seven large needles carrying fourteen ligatures.

January 10, 1869. Wound of upper lip entirely healed and tissues contracted.

February 23d. Operation. The patient having been etherized, a few drops of a saturated solution of nitrate of silver were injected by a subcutaneous syringe at eight several places in the thickness of the lower lip, the latter having been compressed upon the point of the syringe during the injection.

February 24th. The patient complains of pain extending down both sides of the neck. Lip much swollen.

February 28th. Little pain; free discharge from the openings; lip swollen and hard.

March 5th. Several small sloughs have come away, leaving cavities beneath the skin. From this time the lip contracted, puckering at the injected points until the whole was solidified.

April 6th. Operation. The patient having been etherized, a V-shaped piece was excised from the centre of the lip, with very little hæmorrhage, except from the coronary arteries.

May 2d. Patient was discharged with a lip of nearly normal size.

CASE II. *Cirsoid Aneurism of the Orbit; Operation; Cure.* — H. McC., housemaid, aged twenty-five, noticed in 1868 a small pulsating swelling at the inner angle of the left orbit. Now, a pulsating tumor of the size of a large almond extends from the supra-orbital notch to the bridge of the nose, and backward between the globe and the orbit. It has increased rapidly of late, and the mass has a tortuous feel like that of enlarged and convoluted arteries. Pulsation is strong and heavy, with a thrill, diminished but not arrested by compression at various points of its circumference. Compression of the carotid does not materially affect the pulsation.

October 17, 1874. Operation. Three drops of a saturated solution of nitrate of silver were injected into the centre of the tumor by a subcutaneous syringe. Before the injection the tumor was firmly compressed against the bone over the orifice of the syringe and held there for a minute or two afterwards. A marked venous congestion was immediately noticed in the vicinity of the tumor. P. M. The swelling has extended to the frontal region; eyelid congested.

October 18th. Tumor perfectly hard, without pulsation. Left eye closed by the swelling of the lids. The latter were scarified. Some frontal headache.

October 23d. Lids opening. General swelling diminished, red but less tender.

October 29th. Swelling larger and fluctuating. Eye again closing.

October 30th. Gland in front of right ear and one under left jaw swollen and tender. Pulse 100. Temperature 99.5°.

November 4th. Temperature normal. The site of the tumor is occupied by a large and fluctuating swelling. Glycerine plasma was applied over the tumor to soften the cuticle where the pus seemed to be pointing.

November 5th. The abscess was spontaneously evacuated near the inner canthus.

November 12th. The patient was discharged at her own request.

December 12th. The patient returned for examination. The place filled by the tumor was now occupied by a firm cicatrix everywhere adherent to the bone.

EXPLANATION OF FIGURES.

Fig. 1. — Exstrophy of the bladder. Lines of the incisions. In uniting them over the dissected surface of the bladder, the points A A A were brought together, and the points B B; the skin more readily yielding in a direction obliquely upward.

Fig. 2. — Photograph of the wound after healing.

A CASE OF ENCEPHALOID CANCER OF THE LUNGS.

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Dr. C., aged fifty-seven, an active, robust man weighing a hundred and seventy-five pounds, began to notice toward the close of 1874 an increase in the frequency of his respirations, and a slight falling off in his strength. In January, 1875, he took cold and had a severe cough attended with considerable dyspnœa, which lasted several weeks. He kept about his business, and the cough got somewhat better; but the dyspnœa never subsided. All through the spring and early summer he felt that he was carrying a load on the right side in the region of the liver, which prevented free respiration. He took a fresh cold early in July, and on the 10th of that month was seized at eight o'clock in the evening with a most severe dyspnœa and pain in the right side. The attack was accompanied with a violent cough. It was spasmodic, persistent, and not attended with any expectoration whatever. The site of the pain and distress was a space about two inches in diameter, situated on the nipple-line, just below the ribs on the right side. It was tender and tympanitic, and offered some resistance to pressure, yet no distinct tumor could be felt. The severest part of the attack lasted six hours, when he became easier, but slept little if any.

These symptoms recurred every night for a week or more, and were partially relieved by small doses of chloral and opium. The patient was confined to the house two or three weeks; he gradually improved, however, so that he went out-of-doors and saw a limited number of patients. But the dyspnœa, cough, and weakness never left him.

September 5th. He was examined by Dr. Ellis and myself. There was marked dullness over the lower lobe of the left lung. Subcrepitant and finer râles were abundant in this region. Both of these signs were very marked below a line on a level with the lower angle of the scapula, and both gradually shaded off toward the apex. The respiration was indistinct in the left lung compared with the right. There was no increased resonance of voice. He had lost about twenty pounds of flesh, and was pretty weak. Pulse 80, regular. The disease was thought to be chronic catarrhal pneumonia.

October 16th. Pulse 92. Temperature 99.8°. Respiration 26, labored. Dyspnœa and cough no better. Dullness, almost flatness, all over the left chest, except just below the clavicle, where, over a small space, there was a peculiar tympanitic resonance. Bronchial respiration over the back, and broncho-vesicular respiration over the upper left front. No râles. Marked resonance of voice over the whole of the left side. Vocal fremitus was entirely wanting on this side, though it was very distinct on the right. At the base of the right lung there were a few subcrepitant râles. There was no fullness of the intercostal spaces, nor dislocation of the heart.

The entire absence of vocal thrill and râles, and the indistinct respiration, led to the conclusion that effusion had taken place in the left pleural cavity. Dr. Ellis punctured the chest with the aspirator, and drew off between two and three pints of dark, yellow fluid. Considerable relief followed. The respiration returned nearly to the bottom of the lung behind, where it had been nearly or quite wanting, previous to the tapping. There was also a decided increase of respiration in the upper part of the lung. The dullness was much diminished, and the voice became less resonant.

In a few days the condition was as bad as ever. Dr. Bowditch was called in consultation October 22d, and made the following notes: "Tympanites in upper half of left chest, front. Flatness elsewhere. Strong ægophony in lower left back, with bronchial respiration. No râles. Heart at the right of the sternum. Puerile and pure respiration, good resonance throughout the right lung." He advised a repetition of the paracentesis, and performed the operation. Forty-six ounces of a sanguinolent fluid were drawn from the left chest. For several hours after the operation the patient suffered from the most excruciating stitch-pains, but was finally relieved by a free use of opiates. He remained somewhat more comfortable for a few days, but the cough and dyspnœa were very severe and constant.

The first week in November all of the symptoms were worse, and there was progressive diminution of strength and flesh. The dyspnœa was so severe that the patient could not lie down. His skin was greatly congested, and his lower extremities œdematous. There was bulging of the left intercostal spaces. The heart was displaced to the right of the sternum, and there was a slight friction-sound as of commencing pericarditis. He was tapped again by Dr. Bowditch, and forty-seven ounces of the same kind of fluid as at the last operation were obtained. The chest was not as thoroughly emptied, and the resulting stitch-pains were not as severe, nor was there quite as much relief from the dyspnœa, as before.

November 15th. Physical signs in the left chest were as before: flatness, absence of vocal fremitus, and respiratory sounds.

Dr. Bowditch again introduced the trocar, but did not obtain any fluid. The puncture was made in the same region as on the previous occasions, — at about the seventh intercostal space. It was supposed that the instrument had penetrated a mass of malignant disease, or the lung crowded against the walls of the chest.

From this time until his death, on the 20th of November, the patient's sufferings from dyspnœa were most intense, in spite of large and continued doses of opium and the free inhalation of chloroform. He retained his consciousness to the last, and finally died of exhaustion.

The autopsy was made twelve hours after death, in the presence of Drs. Bowditch, Buckingham, Ellis, Webb, and McCollom.

Rigor mortis was well marked; the body not greatly emaciated. The color was normal; there had not been any cachectic appearance during life.

About three quarts of fluid were found in left pleural cavity. It was at first light-colored, but became dark at the bottom of the chest. The left lung was contracted and crowded upwards, so that its lower edge came opposite the nipple. It was very firmly adherent at the top, and part way down the back and sides. The lower portion was crowded against the thoracic walls by the fluid, thereby explaining the failure to obtain fluid at the last tapping. The lung was hard, contracted, slightly compressible, and, with the whole pleural surface, closely infiltrated with encephaloid cancer. A section of the lung looked not unlike miliary tubercle, and this form of disease has been called miliary cancer.

The following is Dr. Fitz's report of the appearances of the organs:

"The left lung more particularly, the right one to some extent also, contained numerous nodules and granules varying in size from that of the head of a small pin to that of apricots. With the exception of the smallest ones their borders were not circumscribed, but they assumed rather the appearance of a diffuse infiltration of a grayish color, and were of a soft-solid consistency. On pressure there exuded drops of opaque, gray fluid, which readily became confluent. These drops consisted almost wholly of large, flat, finely granular cells, of exceedingly irregular shapes. Their nuclei were large, and presented the indentations and septa indicative of proliferation.

"From the smallest bronchial tubes yellow drops could be squeezed, which were mainly composed of similar cells in a state of fatty degeneration.

"The left pleura more particularly was thickened, reddened, and dotted with slightly elevated patches and granules varying in color from gray through white to yellow. In the subpleural fat-tissue, similar granules were observed, often as beaded lines; and the subpleural lymphatics of the lung were injected with a yellow material. The bronchial glands were enlarged, soft and gray, exuding white drops on pressure.

"The nodules in the kidney were firmer, but possessed a similar structure to that of the pleural nodules, and, so far as the cells were concerned, to those of the diseased portions of the lungs. The cells were arranged in an alveolar manner.

"When portions of the infiltrated lung-tissue were shaken in a bottle containing water, the elastic fibres of the affected portion of the lung presented a normal arrangement, and the cells referred to were occasionally found as clumps representing casts of the alveoli.

"The tumor thus presented the characteristics of a medullary cancer."

The right pleural cavity contained between one and two pints of clear serum. The lung was somewhat adherent at the apex, but not as much shrunken and contracted as was the left. The pericardium contained three or four ounces of thin, deep red fluid; but there were no patches of lymph, nor adhesions, nor redness on its inner surface. The heart was slightly enlarged. Its valves and walls were normal. In each kidney was found a small nodule of whitish substance, the size of a pea, of the same nature as the growth in the lungs, but secondary to it. The liver was somewhat enlarged. Its substance was apparently healthy, as was its capsule. The gall-bladder was filled with a very dark fluid, but did not contain calculi. The stomach and spleen were normal. A few glands behind the duodenum were enlarged, and infiltrated with what appeared to be the cancerous material.

Remarks. — Primary cancer of the lungs is so very rare, and the symptoms so obscure, that the above case is of peculiar interest. At the first examination the diagnosis was thought to be plain. Dullness, and subcrepitant and finer râles at the base, with a gradual loss of flesh and strength, naturally led to the diagnosis of chronic catarrhal pneumonia. But at the second examination, six weeks later, although the dullness had greatly increased, the râles were gone, and the respiration at the base was nearly so. Moreover, vocal fremitus was absent. There was evidently effusion. But effusion supervening upon catarrhal pneumonia is very uncommon. This peculiarity in the symptoms, coupled with the fact that the patient experienced much less relief from emptying the pleural cavity than is usually obtained in ordinary cases of effusion, led us to think that we had to deal with some unusual affection of the lungs. That this affection was probably malignant was the unanimous opinion of all the physicians who saw or attended the patient.

Another peculiar feature of the case was the pain. For thirty years and more, Dr. C. had invariably suffered pain after eating, at a point just below the ribs, on the right side, about two inches from the median line. This region was frequently tender and distended. During his last illness all of the pain and discomfort, except the stitch-pains felt after tapping, were situated in this spot or radiated from it. He had no pain whatever, with the above exception, in his left chest, the principal seat of the cancerous affection. As the autopsy revealed nothing to account for the abdominal pain which troubled him so many years, it would probably be called neuralgia.

Again, there was neither hæmoptysis nor expectoration during the whole sickness. All the authorities which I have been able to consult mention both of these as being very common symptoms in this affection. Neither did the patient have the general appearance or many of the symptoms of tubercular disease. There was no hectic, or great emaciation, or disturbance of the stomach and bowels, or sleep-sweats. Primary cancer of the lung, which, according to Niemeyer and other authorities, is an exceedingly rare affection, usually assumes the form of medullary disease; it is hardly ever scirrhus. It occurs in the form either of isolated masses or of infiltration. It seldom breaks down and forms cavities, but is more liable to extend to the pleura, and even through the walls of the chest.

The most prominent symptom in all the cases we have been able to find was dyspnœa. Cough with expectoration and blood-spitting were also present in the majority of cases. These symptoms coming on in a person suffering from a cancer in some external organ would point strongly to malignant disease in the lungs or thoracic cavity; for it is very rare to find tubercular disease in a cancerous patient. But in the case of a patient not known to be affected with cancer the symptoms might be, and often are, very obscure. Cases of primary cancer of the lungs are not unfrequently mistaken for pleurisy, or phthisis, or capillary bronchitis.

The following case is reported in *The Lancet* of April 3, 1869: A girl eleven years of age had severe dyspnœa. There was dullness throughout the left chest. The respiration was inaudible except under the clavicle and close to the spine. Vocal fremitus was present in these two places, but nowhere else. The heart was displaced to the right side, and there was bulging of the intercostal spaces. The diagnosis was effusion into the left chest. She was tapped twice between the eighth and the ninth rib, but only a few drops of blood and pus came from the trocar. At the autopsy a large mass of medullary cancer was found in the left chest. The lung was pushed back and spread out over the tumor. This case shows the great difficulty or even impossibility of making a diagnosis in some of the malignant affections of the thoracic cavity.

Pleuritic effusion is not as common in these cases as one would at first suppose. Dr. Risdon Bennett[1] says it was present in only six cases out of thirty-nine. I found it reported as being present in three out of seven cases. Occasionally the question of effusion in these cases can be easily decided by finding the dullness at the upper part of the chest, and by the fact that it does not change its place with the different positions of the body. But the surest method to determine the presence of fluid is by aspiration. There is seldom anything in the expectoration to aid in the diagnosis of thoracic cancers. The so-called characteristic "black currant expectoration" is exceedingly rare.

Aside from pleurisy, the disease most liable to be mistaken for cancer of the lung is probably tuberculosis. In the former we should not expect to find the high pulse and temperature, pallor and emaciation, and profuse sweats, so characteristic of the latter affection.

[1] The Lancet, 1870.

I desire to say in conclusion that the patient in this case received the kindest attentions from Drs. Bowditch, Ellis, Buckingham, Cotting, Storer, and McCollom.

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RECENT PROGRESS IN MEDICAL CHEMISTRY.

BY EDWARD S. WOOD, M. D.

URINARY CHEMISTRY.

Alkapton in the Urine. — The second case of the finding of this substance in the urine is reported by P. Fürbringer.[1] The first case was reported by Boedeker,[2] alkapton having been found together with grape sugar in the urine of a patient forty-four years old. In this case, it was found in the urine of a gold worker, twenty-nine years old, who was suffering with disease of both the lungs and of the liver.

Alkapton is a substance which has a powerful attraction for oxygen, and reacts chemically in many respects like grape sugar, and therefore may in rare instances be mistaken for it, unless the proper means be employed to distinguish between them.

The urine, the specific gravity of which varied from 1010 to 1025, was remarkable for its dark color (between numbers seven and eight of Vogel's color table), and for the small amount eliminated during the twenty-four hours, the average amount being about six hundred cubic centimetres (minimum = three hundred cubic centimetres ; maximum = eight hundred cubic centimetres). This condition had lasted but a few weeks previous to his admission to the hospital, and did not seem to be at all dependent directly upon the lung or the liver disease. The urine had a pretty strong acid reaction, no special odor, and no abnormal sediment, except occasionally one consisting of amorphous urates. At times a trace of albumen could be detected, but usually none was present. The excess of color was due to a very large proportion of urophæin, and to no abnormal pigment.

The urine was tested for sugar by Trommer's test (liquor potassii and sulphate of copper), and an abundant precipitate of the suboxide of copper was obtained, a result which was entirely unexpected. It was also noticed that immediately upon the addition of the liquor potassii a very dark brown color was produced, which is not one of the reactions of sugar, but is of alkapton. When alkapton is treated with an alkali, the solution absorbs oxygen very rapidly, in varying proportions according to the amount of alkapton present. When this urine was rendered alkaline and shaken with air, it absorbed about four fifths of its volume of oxygen. In Boedeker's case the urine similarly treated absorbed somewhat more than an equal volume of oxygen. It is, of course, upon this property of alkapton that its reaction with Trommer's test depends. It is impossible to detect sugar by this test, unless the urine be first freed from alkapton by precipitating it with the basic acetate of lead (which throws down the alkapton and leaves the grape sugar in solution) and filtering.

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[1] Fresenius' Zeitschrift, 1875, page 408; from Berliner klinische Wochenschrift, 1875, No. 24.

[2] Annalen der Chemie und Pharmacie, cxvii. 98.

Moore's or Heller's test (heating the urine with liquor potassii alone), which is, perhaps, the most frequently employed test for sugar in the urine, will not serve to detect sugar in the presence of alkapton, on account of the dark brown color produced by the latter. There are, however, two common tests for grape sugar which are not interfered with by the presence of alkapton, namely, Boettger's and the fermentation test, since the latter substance does not reduce the subnitrate of bismuth to the form of metallic bismuth, nor does it give rise to the production of carbonic acid and alcohol when mixed with yeast, as does grape sugar.

Mulder's test for sugar reacts only partially with alkapton. When a dilute solution of indigo-carmin is mixed with an equal volume of liquor potassii, then a little of the urine is added, and the whole heated, the play of colors, through a blue, green, violet, and red to a reddish brown, is produced both with alkapton and with sugar; but upon shaking again with air, the reverse takes place only when sugar alone is present, alkapton preventing the reoxidation.

The importance of being able to detect this substance in the urine depends upon the liability of diagnosticating diabetes mellitus when no sugar exists in the urine, since nothing as yet is known concerning the method of the formation of alkapton in the body. In the case reported no alkapton could be detected after death in the fluids of the body.

Determination of Uric Acid in the Urine. — The method usually employed for estimating uric acid in the urine, namely, precipitation by hydrochloric acid, has many disadvantages, the principal one of which is that there are certain substances present in many specimens of urine which apparently hold the uric acid in solution. A new method is given by A. P. Fokker,[1] which depends upon the insolubility of the acid urate of ammonium in alkaline solutions, and which gives excellent results.

The method is as follows. One hundred cubic centimetres of urine are treated with a solution of the carbonate of sodium until the reaction is strongly alkaline, and filtered from the precipitated earthy phosphates. To the filtrate is added ten cubic centimetres of a solution of chloride of ammonium, and the whole is allowed to stand for several hours, when all of the uric acid will be precipitated in the form of urate of ammonium, which for the most part collects at the bottom of the vessel, a little usually adhering to the side. Then filter and collect this precipitate on a small, previously weighed filter. The next step is to decompose this with hydrochloric acid, in order to set the uric acid free. To accomplish this, the funnel with the filter in it is passed through a hole in the stopper of a common bottle, and the stopper is then tightly inserted so as to prevent the escape of any air from within the bottle. The filter is next filled with strong hydrochloric acid, and allowed to remain until the precipitate is decomposed and the uric acid formed. Then when the stopper is loosened, the hydrochloric acid will escape, leaving the uric acid upon the weighed filter. It should be washed till no more acid is left, then dried and weighed. Since a minute amount of the urate of ammonium remains dissolved in the urine, it is necessary to add sixteen milligrammes to the amount of uric acid found in each one hundred cubic centimetres of urine analyzed.

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[1] Fresenius' Zeitschrift, 1875, page 206; from Pflüger's Archiv, x. 153.

One great advantage of this method over the ordinary one is that it is not necessary to free the urine from albumen, since this substance is not precipitated from alkaline solutions, and therefore does not interfere with the result. In this way a much larger amount of uric acid is always obtained from the urine.

This method can also be used as a clinical test for the approximate estimation of uric acid to much better advantage than Heller's test, which consists in adding to the urine in a test-tube one eighth of its bulk of hydrochloric acid, and allowing it to stand for twenty-four hours. The amount of uric acid present is then judged of approximately by the amount of crystalline sediment seen at the bottom of the test-tube. In many specimens treated in this manner no crystals form when uric acid undoubtedly exists in considerable amount.

Action of Uric Acid on Fehling's Solution. — Professor J. Seegen[1] has tested this action in the cold. As is well known, both grape sugar and uric acid produce a precipitate of the suboxide of copper when their alkaline solutions are boiled with a few drops of a solution of sulphate of copper, but only sugar produces this result in the cold. Very dilute solutions of sugar in urine will not, however, produce any precipitation of the suboxide of copper, since certain ingredients of the urine will hold in solution small amounts of this substance. Thus, Seegen found that urine which contained only one tenth per cent. of sugar decolorized Fehling's solution, but did not produce any precipitate, and he also found that pure solutions of uric acid containing one half per cent. (a larger amount than urine ever contains) act in the same way. Uric acid, therefore, when present in considerable amount in urine does have some effect upon copper solutions in the cold, and we must not conclude that sugar is necessarily present in the urine, even though Fehling's solution is partially decolorized at the ordinary temperature, if no precipitate of the suboxide of copper is produced.

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[1] Centralblatt für die medicinischen Wissenschaften, 1875, No. 21.

Dextrine in Urine. — E. Reichardt[1] has repeatedly observed that the urine of diabetics after the disappearance of the sugar does not lose its power of reducing Fehling's solution, although this power is much diminished. This is due to the presence of a certain amount of dextrine in the urine. He isolated the dextrine in a pure form, and was able to recognize it by all of its reactions and to make an ultimate analysis of it, its composition corresponding to that of dextrine.

Prostatic Concretions. — In an article upon the normal anatomy of the prostate, by Axel Iverson,[2] the author speaks of the formation and chemical composition of the prostatic concretions and calculi. By a microscopic examination of the fresh secretion were seen masses of cylindrical epithelial cells containing single yellowish kernels which had a strong refracting power. These kernels were also seen free in the fluid and clumped together in small masses. They were found wanting in the secretion of children, being first seen after the seventh year, and their number increasing with the age of the individual. They were insoluble in potassic hydrate, acetic acid, and ether. Iodine colored them yellow or brownish yellow, never blue. They were not colored by Millon's reagent.

The true concretions were never found before the twentieth year. These consisted of layers of material composed chiefly of inorganic phosphates deposited around nuclei of these yellowish kernels, or small masses of organic detritus. They grow darker with the age of the individual, after the forty-fifth year being usually reddish or even dark brown. Many of them are colored blue by iodine, the number which are so acted upon seeming also to depend upon the age of the individual, nearly all of those which were found in persons between twenty and thirty-five years of age, and scarcely any of those found after the age of sixty, being colored blue by iodine. They were mostly dissolved by hydrochloric, nitric, and acetic acids. No single concretion was found larger than the head of an ordinary pin, the large prostatic calculi frequently seen consisting of aggregations of these small concretions held together by mucus.

An analysis of about two grammes of these concretions gave the following composition: —

Water	8.00
Organic matter	15.80
Lime	37.64
Magnesia	2.38
Soda	1.76
Potash	0.50
Phosphoric acid	33.77
Substance insoluble in acids	0.15

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[1] Fresenius' Zeitschrift, 1875, page 417; from Pharmaceutische Zeitschrift für Russland, xiv. 45.

[2] Maly's Jahresbericht, 1875, page 358; from Nordiskt Medicinskt Arkiv, vi. 20.

They therefore consisted chiefly of calcic phosphate, containing no sulphur, sulphuric acid, chlorine, or carbonic acid. They did contain a trace of iron. No reaction for albumen could be obtained from the organic matter, which contained about thirteen per cent. of nitrogen.

(*To be concluded.*)

PROCEEDINGS OF THE NORFOLK DISTRICT MEDICAL SOCIETY.

A. H. NICHOLS, M. D., SECRETARY.

THE quarterly meeting of the society was held at the Willard House, Hyde Park, July 14, 1875, the President, DR. S. E. STONE, in the chair. Present, twenty-eight members.

DR. HAMMOND reported a case of puerperal convulsions, occurring in a young woman who was the subject of extensive œdema of the face, neck, upper and lower extremities, and external genital organs. There was no previous history of epilepsy and no reason to suspect the existence of hysteria. She was supposed to be in the beginning of the ninth month of pregnancy.

The treatment consisted in the free and continued use of chloral combined with morphia, in moderate venesection, and in powerful catharsis. Labor set in, resulting favorably to both mother and child. Dr. Hammond was of the opinion that the absence of convulsions during the process of labor was due, in no small degree, to the powerful revulsive action of croton-oil, employed as a cathartic immediately before labor set in.

DR. MAYNARD was disposed to regard the action of any drug as extremely uncertain, so far as concerns the controlling of convulsions.

DR. SALISBURY stated that in the early part of his medical life the common remedy employed in case of puerperal convulsions was venesection. From his personal experience in this disease, he was not disposed to advocate the artificial induction of labor.

DR. CHASE gave the particulars of a case of puerperal convulsions in which he resorted to artificial dilatation of the os and the application of the forceps, both woman and child being saved. The convulsions returning were relieved by the use of chloral.

DR. CAMPBELL read a paper upon puerperal fever, in which he maintained that the most frequent cause of this affection is septic poisoning, which is especially liable to supervene in the puerperal state, owing to the circumstance that the uterus presents at that time a large wounded surface, exposed throughout to the action of decomposing putrid fluids. Cases were cited to illustrate that the prominent symptoms of puerperal fever were such as are peculiar to septicæmia.

DR. BOLLES, in criticising the paper, thought the reader had not been sufficiently discriminating in his explanation of the causes of puerperal fever, in that he had omitted some of the most important causes; he had failed, moreover, to allude to certain coincidences worthy of mention, in which numerous cases of this disease follow in the wake of a single practitioner.

Dr. Campbell said, in reply, that he was quite ready to admit that the infecting material might come either from within or from without the patient.

Dr. Goss read a paper upon German measles (rötheln) and its relations to other exanthematous diseases.

Dr. Gerry read a paper upon rheumatic meningitis.

Dr. Bacon reported a case of exanthematous disease in which the eruption assumed an anomalous appearance. The case at the outset seemed to be one of varioloid, the eruption on the first day being papular, on the second vesicular, and on the third pustular. A week later the crusts had fallen off, but were immediately succeeded by a fresh crop of pustules.

Dr. Perry related the particulars of three cases which had been diagnosticated by another physician as German measles, where he was satisfied that the eruption was due to indigestion (ingesta rash of Wilson).

Dr. Bolles exhibited the following specimens: —

(1.) Renal calculi from three different patients, neither of whom exhibited any symptoms indicative of the presence of the calculi.

(2.) Biliary calculi resembling beet-seed.

(3.) A tape-worm, of the variety known as medio-cannellata.

The regular quarterly meeting of the society was held on November 10th, at the Willard House, the President, **Dr. S. E. Stone**, in the chair.

Dr. C. C. Hayes read a paper upon the Pathology and Treatment of Placenta Prævia, the previously announced subject for consideration.

In the general discussion which followed, **Dr. Fifield** favored the treatment of certain varieties of placenta prævia in accordance with the principles inculcated in 1844 by Professor Simpson. This method consists in carefully peeling off and removing the placenta, which commonly results in an immediate arrest of the hæmorrhage, and a favorable termination of labor without further interference. Dr. Fifield maintained that this forcible detachment of the placenta was followed by an occlusion of the bleeding vessels, and thus proved a direct method of stopping the flowing, while the process was attended in many cases with less danger to the mother than that of artificial extraction of the child. If the hæmorrhage did not cease after the operation, he should attribute it to the imperfect detachment of the placenta. It is to be understood that this method was recommended by Professor Simpson, not as a general rule of practice, but as a procedure to be had recourse to only when other recognized modes of management prove insufficient or unsafe; when, for instance, the hæmorrhage is not restrained by the artificial evacuation of the liquor amnii; when turning is hazardous or impracticable; or when the child is dead or non-viable.

Dr. Campbell thought that the mode of treating placenta prævia by detaching the placenta was open to this serious objection, namely, that it involved the death of the child, an inevitable result of the non-aeration of the blood, and not of the hæmorrhage, as has been incorrectly supposed.

Dr. Trull also differed from Dr. Fifield, on the ground that the life of the child would generally be sacrificed if the placenta was first brought down. He related two cases occurring in his practice, both being primiparous, in which the os being open to the size of half a crown, the fingers were slowly introduced seriatim, dilatation accomplished, membranes punctured, and the feet brought down. Turning was not difficult, and hæmorrhage almost immediately ceased. Delivery was in one case delayed by the absence of pains, until the child was asphyxiated beyond the power of restoratives. In the other case, the child survived. Both women made good recoveries, although extremely prostrated from loss of blood, no radial pulse being perceptible in one at the time of operation. Dr. Trull regarded version, in the great majority of cases, as the safest and most desirable method of treatment, demanding only persistence in the exercise of gentle force while introducing the hand.

Dr. Winkler said he had treated two cases of placenta prævia, both mother and child being saved in each instance. The course pursued by him was to forcibly dilate the os, employing for the purpose Barnes's dilator; then, rupturing the membranes, to leave the case to a natural termination.

Dr. C. E. Wing said that it might be interesting to the members to hear what method is pursued in Vienna in the treatment of placenta prævia, which is as follows: —

If the os is open enough to permit version by the feet, this operation is at once performed.

If the os be not sufficiently open, and the hæmorrhage continues, the waters are evacuated, which alone is generally sufficient to stop the bleeding; and as soon as the os dilates, version by the feet is performed.

If after evacuating the waters the bleeding continues, or the os is particularly slow in dilating, the vagina is tamponed with the colpeurynter (a rubber bag distended with water).

In Vienna, stress is laid upon the importance of not wasting time in the attempt to find the thinnest edge of the placenta, as the arm when introduced acts as a plug, and the leg of the child takes the place of the arm when the latter is withdrawn.

Instances would of course occur where the above rules might not be applicable. For example, Dr. Wing recalled one case where the head presented at a well-dilated os, and the womb was so contracted that turning was deemed very difficult. Here the child was delivered by the aid of forceps. In another case, an attempt at version failed, and the placenta was then wholly detached, after Simpson's method. When the child was afterwards born (dead), the cord was found so wound about the body that version was thereby rendered absolutely out of the question.

Dr. Tower stated that two instances of placenta prævia had fallen under his observation, one of which was particularly instructive. The patient was thirty-five years old, and when first seen was exsanguine; the pulse was small and weak; the os was high up and extremely rigid, corresponding to the condition described in the text-books as that of "ivory hardness." Dr. Tower proceeded to forcibly dilate the os until it would admit the tips of two fingers, and then inserted a tampon. Upon the following day the parts were found in the same condition, the os being in no way relaxed, and the tampon was accordingly replaced. He had barely reached home before a messenger came to inform him that an alarmingly profuse hæmorrhage had taken place. He at once hurried to the bedside of the woman and found her dead. At the autopsy it was discovered that the placenta was attached for the most part to the anterior surface of the womb; it covered completely the internal orifice of the os, and reached up a short distance upon the posterior wall. Its diameter was thirteen inches. Dr. Tower said that in another similar case he should not hesitate to resort to incisions of the os.

Dr. Dearing remarked that in a similar case reported by Bedford, where the hardness of the os resembled that of ivory, incisions were made in the os.

Dr. Monroe insisted upon the importance of not leaving the patient for any length of time in a case of placenta prævia.

Dr. Arnold said his experience comprehended ten cases of placental presentation, involving all the different varieties. The interesting features of several of these cases were briefly related.

THE TEACHING OF MEDICAL JURISPRUDENCE.

Various legal trials have of late brought strongly before our mind the necessity of better instruction in medical jurisprudence than is given in any of our schools. In many schools it is not taught at all, and we fear it is thoroughly taught in none, in spite of its great and continually increasing importance. Probably the real reason of the neglect is an uncertainty as to the best method of giving the instruction. The subject may be divided into two chief parts, according as it is considered from a legal or a medical aspect. Of these the latter is infinitely the more important. The physician should know something of his legal obligations to his patients, to what extent he is responsible for results, how far communications may be considered privileged, and what are his rights as a witness. A very little might be said as to the manner of giving evidence, but it need be very little, for if the expert have ability and knowledge, all else that he requires is honesty, coolness, and the courage to maintain his opinion if he is sure he is right, and to acknowledge his ignorance of what he does not know. If the physician has not these qualities, no instruction will give them to him, and we believe that everything essential in the above subjects could be discussed in half a dozen lectures, which might or might not be given by a lawyer.

With the medical aspect of this branch the case stands very differently, and we venture to assert that there is no man living who can give a perfect course, so varied and accurate is the knowledge required, embracing the details of every department of medical science. Yet it is this part of the branch in which instruction is chiefly wanted. It seems to us that the remedy is simple. To appoint a man to teach the latest advances in various sciences, all of which he cannot possibly keep up with, is absurd, but it is very natural to expect each instructor to dwell on the medico-legal aspects of his own branch. Thus, the professor of chemistry should teach the detection of poisons and blood stains; the anatomist, the identification of bones or pieces of bone, the proportions of the body, and the way to determine the height, age, and sex, from parts of it; he should treat of soft parts as well as of bones, and mention the effect of exposure, decomposition, fire, etc. The surgeon has the important duty of putting the student on his guard against the black-mailing conspiracies to which we are particularly liable in the treatment of fractures and dislocations, and he should also speak of the injuries from gun-shot wounds and blows, especially those on the head. The obstetrician and gynæcologist should decide such questions as the duration of pregnancy, still-birth and living birth, rape, etc., while the appearances caused by suffocation may be treated both by teachers of physiology and those of pathology; general directions for making an examination of a body should be given by the latter. It should be settled by agreement in what branch certain questions may best be discussed, and thus the whole subject will be thoroughly taught. We would not have the instructor set apart certain lectures for medico-legal subjects, but would have these introduced in their proper places throughout the course, which will thereby be more attractive as well as more profitable. At the examinations each professor should ask several medico-legal questions on subjects pertaining to his branch. The days are past, if they ever existed, when all this could be done by one professor, but it is still more absurd to appoint to the professorship a lawyer who can teach none of these things. To make up his course, he must go at length into legal discussions most of which, we say it with the greatest respect, the physician is better without. It cannot be too strongly impressed on the medical witness that he has nothing to do but to tell the truth.

MEDICAL NOTES.

— In *The Lancet* of December 11, 1875, is an article on trichinosis based upon data derived from Germany and from the United States. Dr. Sutton, of Aurora, Indiana, has published an account of a carefully investigated outbreak of the disease which occurred in that town in 1874, in which nine persons were attacked, of whom three died. The symptoms were mainly those of gastroenteritis; muscular pains were experienced in a minority of the cases. "The resemblance of the symptoms in two of the fatal cases, and in those which were not fatal, to a simple inflammation of the alimentary tract, is a fact of much importance, which was further confirmed by experiments on dogs. Its importance lies in the fact that while trichinosis had no place in the registrar-general's returns in America a few years ago, dysenteric and enteric affections produce a great number of deaths, and Dr. Sutton brings forward facts to show that a considerable proportion of the pigs killed in the Western States are affected with the disease. Microscopic examination of the flesh of several thousand pigs killed in Southeastern Indiana showed that from three to sixteen per cent. were affected with the disease. The Western States are the chief pork-producing districts. It is estimated that in them five million pigs are killed and sent away each winter, their flesh being the chief animal food of a large portion of the population of the United States. If only four per cent. of these pigs are diseased, the number of affected animals annually sent to the American market is upwards of two hundred thousand! If it be true that in ninety per cent. of the cases of trichinosis the chief symptoms are intestinal, trichinosis may have been effecting serious unsuspected ravages for many years."

— Chloride of lead as a deodorizer and disinfectant is highly recommended by R. H. Goolden, M. D., in *The Lancet* of December 11, 1875. To prepare it, take half a drachm of nitrate of lead, dissolve it in a pint or more of boiling water, and dissolve two drachms of common salt (chloride of sodium) in a bucket of water. Pour the two solutions together and allow the sediment to subside. The clear supernatant fluid will be a saturated solution of chloride of lead. A cloth dipped in this solution and hung up in a room will sweeten a fœtid atmosphere instantaneously, or the solution thrown down a sink, water-closet, or drain, or over a heap of dung or other refuse, will produce a like result. Even the tarnishing of gold and silver plate may be prevented by a rag dipped in the solution being hung up in the room or window where it is exposed. One great advantage of this deodorizer over all others lies in its great cheapness.

MASSACHUSETTS GENERAL HOSPITAL.

LARYNGOSCOPIC CLINIC.

BY F. I. KNIGHT, M. D.

Pediculated Polyp of the Left Vocal Cord; Hoarseness; Restoration of Voice after Removal of the Growth; Microscopic Examination of the Growth; Lymphangioma? — A. J., a Portuguese sailor, twenty-eight years of age, presented himself at the clinic July 19th, with a pediculated polyp on the anterior part of the left vocal cord, near the angle of union of the cords. It was smooth, whitish in color, and of about the size of a bean. On phonation it was thrown up above the cords, although the pedicle was short. The growth was removed August 6th with Türck's forceps. The voice was at once restored. The polyp was put into a phial of alcohol and water immediately. Unfortunately the cork came out in my pocket, and the specimen became somewhat dried before it was discovered. Dr. Fitz reported the following result of his examination of the growth: "The specimen was not in a sufficiently good condition to enable me to make a satisfactory examination. Its structure was essentially fibrous, with several blood-vessels, arteries, whose walls were of remarkable thickness. The dense sub-epithelial layer of tissue contained numerous brownish-yellow pigment granules in rows, and accumulated in round, spindle, and stellate groups. Actual cysts were not found. Irregular spaces were seen, containing a relatively homogeneous but finely granular material, suggestive of coagulated albumen; in their vicinity patches of fibres were found, the bundles more or less convoluted, such as might be seen in parts more or less exposed to considerable changes in volume. It seems unfortunate that a little more could not have been ascertained, as the gross appearances and properties of the tumor, combined with its histology, would lead me to suspect that the growth might perhaps be regarded as a lymphangioma."

Two Cases of Naso-Pharyngeal Polypi treated by Puncture with a Galvano-Caustic Point; the Growths reduced to almost Nothing in Size, with Entire Relief to Symptoms. — CASE I. J. P. S., aged fifteen, appeared at the clinic in

May, complaining of almost complete obstruction of the nose. On rhinoscopic examination, a round tumor about the size of a walnut was seen, covering both posterior nasal openings and septum. Its attachment could not then be made out. It was grayish-white in color, smooth, and somewhat elastic to compression with the probe. On May 22d several insertions were made into this growth with the smallest galvano-caustic point of Voltolini's instrument (the battery would not heat a larger one), and at the next visit, a few days after, the growth had diminished certainly one third in size, and the left posterior nasal opening had come into view. The repetition of the operation a few times completely relieved the respiration, the tumor being reduced to an insignificant size, and both posterior nares becoming free.

CASE II. Mrs. R., aged sixty-four, a private patient, treated at the clinic for convenience. She had had one nasal polypus removed one year ago, and another five years ago. Her sleep had been very much disturbed for four or five months by nasal obstruction. On examination, July 7th, a large rather reddish growth was seen in the rhinoscopic mirror, completely covering the posterior nasal openings. This was punctured in the same manner with the galvano-caustic point, and immediate shrinkage of the growth and relief to respiration followed. The treatment was continued occasionally for several months, till the growth was hardly larger than a bean.

Both of these growths proved to be attached near the junction of the soft palate and septum, but did not extend into the nostril, and hence were not naso-pharyngeal, strictly speaking, but such growths are usually classed as "naso-pharyngeal." Neither were they purely fibrous, but apparently "fibro-mucous."[1]

BOSTON CITY HOSPITAL.

SURGICAL CLINIC.

BY GEORGE W. GAY, M. D.

Extensive Epithelial Disease of the Face; Removal; No Recurrence for Five Years. — Ellen D., a domestic, aged fifty-nine, entered the hospital June 21, 1870. Her disease began as a small wart on the left side of her nose fourteen years ago. It grew slowly till within a year, during which time it had increased rapidly. It was situated upon the left side of her nose and face. It involved the left upper lid, the globe, and all of its contents. The cornea was opaque, and the sight of that eye destroyed. The facial portion was an "upgrowth," two inches in diameter, tender and painful. It had bled occasionally during the past three years. The nostril was not obstructed. The patient was troubled a good deal with headaches, apparently due to the disease. With this exception her general health was very good. After consultation it was decided to remove the growth, more to relieve the patient's pain than with the expectation of ridding her of the disease for any length of time.

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[1] See an interesting case of naso-pharyngeal growth of this structure (occurring in the service of M. Léon Labbé) reported in the Annales des Maladies de l'Oreille et du Larynx, March, 1875.

The patient was etherized, and the entire disease, including the upper lid and contents of the orbit, was removed by Dr. Thaxter. Hæmorrhage was free, but readily controlled by a compress and persulphate of iron.

A good recovery from the operation followed, and the patient was discharged in ten weeks with the wound nearly healed.

September, 1875. This patient remains well at the end of five years. The wound is soundly healed. The orbit is well filled up. The cicatrix is small, soft, painless, and shows no signs of activity. There is not now nor has there ever been any sign of a recurrence. Although it might be claimed by some that she is not cured, yet no one can deny that she has been wonderfully "relieved."

This was a favorable case for operation, inasmuch as the disease was of long duration, of slow growth, and unaccompanied by any constitutional symptoms for a long time. And, furthermore, neither bones nor glands were involved in the disease, and the patient was in fair health.

Malignant Disease of the Upper Jaw; Repeated Removals for Pain; Relieved. — Margaret K., aged sixty, a domestic, first noticed a small tumor on the left side of her face in the spring of 1874. It grew rapidly and was very painful, till the following October, when it was removed through an incision in the cheek. The disease soon reappeared, and the pain became so intense that the infra-orbital nerve was divided subcutaneously, with temporary relief.

She entered the City Hospital January 12, 1875, with a large tumor under her left cheek. The growth invaded the nares, antrum, and orbit, crowding the eye out and totally destroying the sight. The tumor was firm, immovable, and inclined to soften in the centre. There was no enlargement of the glands.

Dr. Cheever removed the growth by free incisions through the cheek, and by tearing the tumor out with the fingers. It came out quite clean. The mouth was not opened nor was the eye removed. The hæmorrhage was profuse, but checked with ferric alum and pressure. The patient rallied well from the operation and went on very well for a month, when the growth reappeared in the left temporal region. She could not open her mouth. The hard palate was crowded down, the pharynx implicated, and the eye crowded partially out of the orbit. The pain was most intense.

On the 19th of March, Dr. Cheever again removed the growth very thoroughly, scooping out a large cavity extending from the roof of the mouth to the orbit, and back to the pharynx. This large space was thoroughly swabbed out with a strong solution of chloride of zinc (one ounce in four ounces of water) and plugged with sponges dipped in ferric alum. The patient soon rallied from this operation, and was pretty comfortable for about five months. Toward the last of August the pain in the orbit became severe and persistent. The lids were enormously swollen, and could not be reduced by acupuncture as at first. The eye was completely removed from the orbit, and, with the lids, rested upon the face. The woman could open her mouth only about half an inch. Swallowing was difficult. The general health was excellent, and had been so since the operation in March.

On the 3d of September Dr. Gay removed the eye, the lower lid, and all the contents of the orbit. The roof of this cavity was necrosed. The upper lid, not being as painful nor as œdematous as the lower, was allowed to remain as a curtain to the large and unsightly opening in the face. The hæmorrhage was free but was easily checked, and the wound was treated as at the last operation.

The growth, like that removed previously, was soft, juicy, lobulated, and tended to break down in the centre. The microscope showed myriads of small round cells, granular matter, and débris.

In a short time the growth began to project into the mouth, between the alveolar process and the upper lip. The patient could get nothing into her mouth except liquids, and those only very slowly and with pain. Her sufferings became so intense that she peremptorily demanded an operation for the removal of the disease, willing to take any and all risks rather than live as she then did.

September 24th, three weeks after the last operation, she was again etherized, and the upper jaw was removed by Dr. Gay. An incision was made through the centre of the upper lip, around the left ala, and up the side of the nose. The lip and cheek were quickly turned back, no effort being made to check the hæmorrhage. The alveolar and palate processes were divided with forceps, and the jaw, with a large mass of disease, dug and torn out with the fingers, aided by an occasional touch with the knife or scissors. An enormous chasm now extended from the tongue below to the base of the cranium above, and backwards and outwards to the pharynx and zygomatic fossa. As the tissues were extremely vascular the hæmorrhage was most profuse. It was controlled by washing out the wound with chloride of zinc, and packing it with sponges dipped in ferric alum.

The wound in the lip united by first intention. In two days the patient was more comfortable than before the operation, and has remained so ever since, nearly three months. She is able to swallow easily. She has less pain than formerly, and to all outward appearances the growth is not increasing. The pain and œdema of the eyelid have disappeared. She is able to be about the ward nearly or quite all day, and is comparatively comfortable. She has not only obtained relief from all of the operations, but her life has undoubtedly been prolonged thereby.

This case illustrates the benefit to be occasionally obtained from repeated operations for the removal of malignant disease. Gross narrates a case of sarcoma of the breast which was removed twenty-three times in four years; eleven operations having been done in one year. Fifty-two tumors were removed, varying in size from that of a small almond to that of a pullet's egg. Ten years after the last operation the woman was perfectly well.

LETTER FROM PHILADELPHIA.

Messrs. Editors, — I can hardly begin my first letter of the centennial year of our country's existence more appropriately than by giving you such details as I have been able to gather concerning the international medical congress which will meet in Philadelphia next September. Until the publication of the general circular, which you undoubtedly have already seen, there has been the most scrupulous care on the part of the committees to avoid giving publicity to any detail whatsoever of the doings of the medical commission. This will explain any apparently causeless silence in regard to this matter. Even now there is much which would be of interest but which is persistently held back. The reason for this secretiveness seems to be a fear that confused statements will get abroad, for at every new meeting of the medical commission plans previously considered as definite are modified. Indeed, I have been told so late as to-day, by one of the officers of the commission, that the circular already issued and distributed will be again modified. This change will, I believe, relate to subdivision of the sections. The most direct method of imparting information concerning the plan of the congress will be to make synoptic use of the circular which has been sent to the medical and leading secular journals. The following is, then, the purport of this document: —

The medical societies of Philadelphia, in order to unite with their fellow-citizens in celebrating the centennial of American independence, have taken the initiatory steps for the formation of an international medical congress by the appointment of delegates from their respective bodies, who were authorized to organize a scheme for the above purpose. This delegation has organized the Centennial Medical Commission with the following officers: President, Prof. S. D. Gross (of Jefferson College); Vice-Presidents, W. S. W. Ruschenberger, M. D., U. S. N., and Prof. Alfred Stillé (of the Pennsylvania University); Recording Secretary, W. B. Atkinson, M. D. (1400 Pine St.); American Corresponding Secretaries, Daniel G. Brinton, M. D., Editor *Medical and Surgical Reporter*, 2027 Arch St.), and Prof. William Goodell (of Pennsylvania University, Twentieth and Hamilton sts.); Foreign Corresponding Secretaries, Richard J. Dunglison, M. D. (814 North Sixteenth St.), and R. M. Bertolet (113 South Broad St.); Treasurer, Casper Wistar, M. D. The congress will open in Philadelphia on the 4th and terminate on the 9th of September, 1876. The commission propose the following general plan of organization and business: —

I. The congress shall consists of delegates, American and foreign, the former representing the American Medical Association and state and territorial medical societies of the Union, the latter the principal medical societies of other countries.

II. The officers shall consist of a president, ten vice-presidents, four secretaries, a treasurer, and a committee of publication, to be elected by the congress at its first session, on a report of a committee of nomination.

III. Morning sessions of the congress shall be devoted to general business and reading of discourses; afternoon sessions to meetings of the nine sections, namely: —

(1.) Medicine, including pathology, pathological anatomy, and therapeutics.
(2.) Biology, including anatomy, histology, physiology, and microscopy.
(3.) Surgery.
(4.) Dermatology and syphilology.
(5.) Obstetrics and diseases of women and children.

(6.) Chemistry, toxicology, and medical jurisprudence.

(7.) Sanitary science, including hygiene and medical statistics.

(8.) Ophthalmology and otology (will probably be subdivided into two separate sections).

(9.) Mental diseases.

IV. The language of the congress shall be the English, but not to the exclusion of other languages in which members can fluently express themselves. Gentlemen intending to make communications on scientific subjects are requested to notify the commission at the earliest practicable date, in order that places on the programme may be assigned them. In order to make the congress purely international, invitations to send delegates will be extended to all the prominent medical societies in Europe, British Dominions, Mexico, Central and South America, Sandwich Islands, East and West Indies, China, Japan, and Australia. Invitations will also be tendered to medical gentlemen of high scientific position, and distinguished visitors may be admitted to membership by vote of the congress.

The Centennial Medical Commission tender in advance to their brethren in all parts of the world cordial welcome and a generous hospitality during their sojourn in Philadelphia.

The registration book will be open daily in the hall of the College of Physicians, northeast corner of Thirteenth and Locust streets from Thursday, August 31st, twelve to three P. M. Credentials must in every case be presented.

Gentlemen who attend the congress can have their correspondence addressed to the care of the College of Physicians as above.

Further information may be obtained by addressing the corresponding secretaries, to whom *all* communications must be addressed.

Such, in brief, is the circular of the commission. Annexed to it is a list of the executive committees for the States; appointed in Boston and New England, are: Drs. H. J. Bigelow, H. I. Bowditch, Edward H. Clarke, Calvin Ellis, and D. Humphreys Storer, of Boston; Drs. A. B. Crosby, Concord, N. H., E. T. Caswell, Providence, R. I., William W. Greene, Portland, Me., Stephen G. Hubbard and C. L. Ives, New Haven, Conn., Isaac G. Porter, New London, Conn., and Edwin M. Snow, Providence, R. I.

The place of meeting has not yet been positively selected. The judges' hall of the centennial buildings has been mentioned, but it would be inconvenient, not only because of its distance from the city, but also because, in order to obtain admittance thereto, the exhibition fee would be unavoidably demanded in every instance. Probably either Horticultural Hall, on Broad Street, or one of the halls of the university buildings will be the selection of the commission.

A registration fee will be required from each American delegate, but none from foreign. The sum total of these fees will assist in paying the expenses of the congress and of the publication of the transactions, a copy of which will be given to each delegate.

During the session there will be a banquet to which foreign delegates will be gratuitously invited. In each of the sections a committee of three has been appointed, whose duty it will be to correspond with men prominent in the various departments of medicine, in order to solicit their coöperation and presence. I am authorized to state that quite a number of eminent foreign specialists have already signified their intention to attend the congress.

The officers of the congress will be selected from the most distinguished individuals present, whether they be American or foreign.

As yet I have vainly endeavored to secure the names of those gentlemen who have been invited to address the congress. The list as at first prepared was published in the daily prints, months ago, but has since been much modified by the refusal of several of the invited, and now is kept out of sight, and will be until it is definitely known who will or will not deliver addresses. I hope to obtain a full list before I close my letter.

I have been told that in Boston it is understood that inferior men have been asked to supply the places of those who have declined the invitation to address the congress. This is an error.

It has been frequently reported that the hotel accommodations of Philadelphia will be insufficient for the needs of visitors. This is another error, and one which might act against the interests of the city as well as of the exhibition. The hotels will provide not only for those who attend the congress, but for all centennial visitors as well. All the regular hotels have added thirty to fifty per cent. to their ordinary accommodations, and special hotels have been built, or are in process of erection, which will suffice for not less than twenty-five thousand to thirty thousand guests. Besides the ample hotels there will be hundreds of apartments to be obtained from the lodging-house bureau of the centennial commission, which has advertised largely and sent circulars to every house of the better class, requesting all citizens who have or will have spare rooms which they are willing to lease during the exhibition to send their names to the bureau. Agents then visit the various apartments, and ranking each room, according to its convenience and furniture, in one of three classes, set a price upon it. These rooms will be obtained in this way: a visitor wishing a sleeping apartment will apply to the lodging-house bureau. The price of the rooms according to class will be named. The visitor will select the class. Tickets, bearing street and number of the house, one ticket serving for a single day and night, will then be sold to him. Provided with these cards he will seek out the proper house and secure the room. Each day he will surrender a ticket to the proprietor of the house, whose servants will care for the room. Meals will be obtained elsewhere. In this simple manner all will be provided for. To complete this plan of the bureau, each ticket in the hands of a housekeeper will be equivalent to a draft upon the bureau for the sum stipulated in their agreement with him.

In addition to this abundant accommodation, delegates to the medical congress will meet with a generous hospitality at the hands of private medical men.

Dr. William Pepper has been appointed medical director of the international exhibition. His duties will mainly comprise the direction of a hospital to be erected on the centennial grounds, for the aid of visitors or exhibitors who may require medical or surgical aid. Such relief in some cases will necessarily be only temporary, but patients will be put into the proper condition for removal by ambulance to hotel, to apartment, or, in case of bad accidents, to some permanent hospital. Dr. Pepper has nominated a staff of six assistants, whose appointments have just been issued by the director-general of the exhibition (Mr. Goshora). They will take alternate charge of the centennial hospital either during an entire day or for a fixed number of hours, as may be hereafter decided.

Hugo's ceratoptera vampyrus could not have possessed a greater power of clutching than have those who hold the list of names which I hoped by this time to secure for you. It appears that certain gentlemen who have been requested to address the general congress have also been proposed as the proper persons to read papers before, and open discussions in, the sections. And since it has been decided that no invitee shall be given a double duty, this matter will be righted before the names of the speakers are given for publication. Hence more waiting! X.

PHILADELPHIA, *December* 28, 1875.

MESSRS. EDITORS, — The following is a copy of a letter from General Washington in regard to his artificial teeth, which will supplement the one published in the centennial number of the JOURNAL of June 17, 1875. The letter is now in the possession of Mr. Henry Austin Whitney, and was written to "Mr Jno Greenwood, Dentist, New York." It is franked "President, U. S." S. A. G.

PHILADELPHIA, *July 1st*, 1792.

SIR, — Your letter of the first of May and the box which accompanied it came safe, and duly to hand on the eve of my departure for Virginia; which is the reason why I have not acknowledged the receipt of them sooner.

The contents of the latter (with the alteration which were necessarily made) answered very well — and enclosed you have, in Banknotes, twenty dollars, the sum I have usually sent you, but if it is insufficient let me know it and more shall be forwarded by

Sir
Yr Obedt Hble Servt
Go WASHINGTON.

WE copy the following from *The Boston Weekly News Letter*, September 6, 1770: —

"A few Weeks since the Operation for the Hare-Lip was performed to great Perfection on a young Man in Milton near Brush-Hill; and a child in Boston has received as much Benefit from the Operation as the Case would admit of, by Mr. Hall Surgeon to the 14th Regiment.

"The Impression these unhappy Sights are apt to make on married Women, should be an Inducement to have this Defect in Nature rectified early in Life, as there are numerous Instances of the Mother's Affection having impressed her Offspring with the like Deformity."

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING DEC. 25, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-Rate per 1000 during Week
New York	**1,060,000**	**541**	**26**
Philadelphia	**800,000**	**304**	**20**
Brooklyn	**500,000**		
Chicago	**400,000**	**141**	**18**
Boston	**342,000**	**192**	**29**
Cincinnati	**260,000**		
Providence	**100,700**	**32**	**17**
Worcester	**50,000**	**25**	**26**
Lowell	**50,000**	**20**	**21**
Cambridge	**48,000**	**21**	**23**
Fall River	**45,000**	**18**	**21**
Lawrence	**35,000**	**11**	**16**
Lynn	**33,000**	**9**	**15**
Springfield	**31,000**	**6**	**10**
Salem	**26,000**	**9**	**18**

Normal Death-Rate, 17 per 1000.

Correction. — In a letter published in the Journal of December 23d, an allusion was made to "the office of the State Board of Charities at 30 Pemberton Square." In justice to every one concerned it should be stated that reference was had to the office of the Directors of Public Institutions of the city of Boston; this office is at 30 Pemberton Square, and has no connection with that of the State Board of Charities.

Norfolk District Medical Society. — The regular meeting will be held at the Willard House, Hyde Park, on Tuesday, January 11th, at eleven o'clock. The following papers will be read: On Intercranial Syphilis, by Dr. R. T. Edes; Paralysis a Result of Maternal Impressions, by Dr. J. Seaverns; Ulcerations of the Os Uteri, by Dr. C. E. Wing; New Surgical Apparatus, by Dr. W. C. B. Fifield; School Children and Contagious Diseases, by Dr. A. H. Nichols. Meeting of the Board of Censors at ten A. M. Dinner at 1.45 P. M.

Books and Pamphlets Received. — In Memory of Ernst Krackowizer. New York: G. P. Putnam's Sons. 1875.

On Certain Morbid Alterations of the Mucous Membrane. By Beverly Robinson, M. D. (With other pamphlets.)

The Canadian Journal of Medical Science. Toronto, January, 1876.

Physician's Visiting List for 1876. Philadelphia: Lindsay and Blakiston. 1876. (From A. Williams & Co.)

Observations on Nasal Catarrh and Catarrh Deafness. By A. N. Williamson, M. D. New York. 1875.

Die Vererbung der Syphilis. Von Dr. M. Kassowitz. Wien, 1876. Wilhelm Braumüller.